

In the Claims

Claims 1-72 remain in the application and are listed as follows:

1. (Original) A skin comprising:
one or more computer-readable media;
at least one skin definition file resident on the one or more computer-readable media, the skin definition file defining a skin and being defined in a hierarchical tag-based language.
2. (Original) The skin of claim 1 further comprising one or more art files resident on the computer-readable media, the art files containing images associated with the skin.
3. (Original) The skin of claim 2, wherein at least one art file defines a primary image that can be viewed by a user when the skin is installed.
4. (Original) The skin of claim 3, wherein at least one art file defines a secondary image that is viewable in response to a user action.
5. (Original) The skin of claim 2, wherein at least one art file defines a mapping image to specify skin regions that respond to user input.
6. (Original) The skin of claim 1 further comprising one or more script files resident on the computer-readable media, the script files defining responses to various events to give the skin a degree of interactivity.

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2 7. (Original) The skin of claim 6, wherein at least one event comprises
3 an internal event that is associated with an application with which the skin is
4 associated.

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6 8. (Original) The skin of claim 6, wherein at least one event comprises
7 an external event that is associated with a user of an application with which the
8 skin is associated.

9
10 9. (Original) The skin of claim 1, wherein the skin definition file
11 comprises an XML file.

12
13 10. (Original) A skin comprising:
14 one or more computer-readable media;
15 at least one skin definition file resident on the one or more computer-
16 readable media, the skin definition file defining a skin and being defined in a
17 hierarchical tag-based language;

18 one or more art files resident on the computer-readable media, the art files
19 containing images associated with the skin, at least one art file defining:

20 a primary image that can be viewed by a user when the skin is installed,
21 a secondary image that is viewable in response to a user action, and
22 a mapping image to specify skin regions that respond to user input; and
23 one or more script files resident on the computer-readable media, the script
24 files defining responses to various events to give the skin a degree of interactivity.
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11. (Original) An XML data structure comprising multiple tag pairs, individual tag pairs being associated with and referencing information that can be utilized to render a skin.

12. (Original) The XML data structure of claim 11, wherein one or more of the tag pairs are associated with individual skin elements and reference information that defines how a skin looks and how the skin elements are laid out.

13. (Original) The XML data structure of claim 11, wherein one or more of the tag pairs are associated with individual skin elements and reference information that defines how a skin looks, how the skin elements are laid out, and how at least one portion of the skin functions.

14. (Original) The XML data structure of claim 11, wherein the tag pairs collectively reference information associated with a background image and images associated with individual skin elements.

15. (Original) The XML data structure of claim 11, wherein at least one tag pair contains information that establishes a color mapping relationship between one or more skin elements and associated colors in an image map.

16. (Original) The XML data structure of claim 11, wherein at least one tag pair contains information associated with at least one subview that defines a subsection within a skin that can be moved or hidden.

1 17. (Original) A skin comprising:

2 one or more computer-readable media; and

3 at least one skin definition file resident on the one or more computer-
4 readable media, the skin definition filing comprising an XML file that contains
5 information associated with the skin, the XML file comprising a root tag pair, and
6 at least one other tag pair that is a child to the root tag pair and that is associated
7 with a particular viewable image that comprises the skin.

8
9 18. (Original) The skin of claim 17, wherein said at least one other tag
10 pair contains one or more tag pairs that are associated with specific skin elements.

11
12 19. (Original) The skin of claim 18, wherein said specific skin elements
13 comprise skin controls.

14
15 20. (Original) The skin of claim 17, wherein said at least one other tag
16 pair contains information that establishes a color mapping relationship between
17 one or more skin elements and associated colors in an image map.

18
19 21. (Original) The skin of claim 17, wherein said at least one other tag
20 pair contains information associated with at least one subview, the subview
21 defining a subsection within a skin that can be moved or hidden.

22
23 22. (Original) A skin-organizing method comprising:

24 providing one or more file types that define different aspects of a skin; and

25 organizing the files types using a hierarchical tag-based structure.

1
2 23. (Original) The skin-organizing method of claim 22, wherein at least
3 one of the file types is associated with an image that defines aspects of a skin's
4 appearance.

5
6 24. (Original) The skin-organizing method of claim 22, wherein at least
7 one of the file types is associated with script that provides a skin's interactivity.

8
9 25. (Original) The skin-organizing method of claim 22, wherein the file
10 types permit the skin's layout and look to be modified.

11
12 26. (Original) The skin-organizing method of claim 22, wherein the file
13 types permit the skin's functionality and look to be modified.

14
15 27. (Original) The skin-organizing method of claim 22, wherein the file
16 types permit the skin's layout and functionality to be modified.

17
18 28. (Original) The skin-organizing method of claim 22, wherein the file
19 types permit the skin's layout, look, and functionality to be modified.

20
21 29. (Original) The skin-organizing method of claim 22, wherein said
22 organizing comprises doing so using an XML data structure.

23
24 30. (Original) A method of providing a skin comprising:
25

1 defining a primary image containing one or more user-viewable elements
2 associated with the skin;

3 defining a mapping image having one or more colors, each color defining a
4 region of the mapping image; and

5 associating individual color regions of the mapping image with individual
6 user-viewable elements of the skin, wherein when the skin is rendered, each color
7 region defines an area of the skin that is dedicated to its associated user-viewable
8 element.

9
10 31. (Original) The method of claim 30, wherein said associating
11 comprises doing so using an XML data structure.

12
13 32. (Original) The method of claim 31, wherein using an XML data
14 structure comprises:

15 defining a first XML tag pair that references the mapping image; and

16 defining one or more second XML tag pairs that are children of the first
17 XML tag pair, each second tag pair being associated with a user-viewable element
18 and containing at least one attribute that is assigned a color in the mapping image.

19
20 33. (Original) One or more computer-readable media having computer-
21 readable instructions thereon which, when executed by a computer, cause the
22 computer to:

23 receive a primary image containing one or more user-viewable elements
24 associated with a skin;

25

1 receive a mapping image having one or more colors, each color defining a
2 region of the mapping image; and

3 establish a relationship between individual colors in the mapping image and
4 individual user-viewable elements, wherein when the skin is rendered, each color
5 region defines an area of the skin that is dedicated to its associated user-viewable
6 element.

7
8 34. (Original) A skin-rendering computer architecture comprising:
9 a layout manager configured to process a hierarchical data structure
10 associated with a skin, the hierarchical data structure containing information that
11 can be used by the layout manager to render the skin; and
12 one or more rendering elements associated with the layout manager, each
13 rendering element being associated with a skin element and being configured for
14 use in rendering their associated skin element.

15
16 35. (Original) The skin-rendering computer architecture of claim 34,
17 wherein the layout manager comprises an object model builder configured to
18 process the hierarchical data structure and, responsive thereto, create the one or
19 more rendering elements.

20
21 36. (Original) The skin-rendering computer architecture of claim 34
22 further comprising a script engine operably associated with the layout manager
23 and configured to receive and execute script associated with one or more of the
24 rendering elements, the script defining a degree of interactivity for the skin.
25

1 37. (Original) The skin-rendering computer architecture of claim 34,
2 wherein:

3 the layout manager comprises an object model builder configured to
4 process the hierarchical data structure and, responsive thereto, create the one or
5 more rendering elements; and

6 further comprising a script engine operably associated with the layout
7 manager and configured to receive and execute script associated with one or more
8 of the rendering elements, the script defining a degree of interactivity for the skin.

9
10 38. (Original) The skin-rendering computer architecture of claim 34,
11 wherein the layout manager is configured to:

12 process a hierarchical data structure that is derived from an XML file that
13 describes the skin and its attributes; and

14 create the one or more rendering elements based on information contained
15 in the hierarchical data structure.

16
17 39. (Original) The skin-rendering computer architecture of claim 34,
18 wherein the layout manager is configured to process the hierarchical data structure
19 and provide a scriptable object model therefrom.

20
21 40. (Original) A computing device embodying the computer architecture
22 of claim 34.

23
24 41. (Original) A skin-rendering computer architecture comprising:
25

1 a layout manager configured to process a hierarchical data structure
2 associated with a skin, the hierarchical data structure containing information that
3 can be used by the layout manager to render the skin;

4 one or more rendering elements associated with the layout manager, each
5 rendering element being associated with a skin element and being configured for
6 use in rendering their associated skin element; and

7 a script engine operably associated with the layout manager and configured
8 to receive and execute script associated with one or more of the rendering
9 elements, the script defining a degree of interactivity for the skin.

10
11 42. (Original) The skin-rendering computer architecture of claim 41
12 further comprising an XML parser for parsing an XML file to provide the
13 hierarchical data structure.

14
15 43. (Original) The skin-rendering computer architecture of claim 41,
16 wherein the layout manager comprises an object model builder configured to
17 process the hierarchical data structure and, responsive thereto, create the one or
18 more rendering elements.

19
20 44. (Original) A computer device embodying the computer architecture
21 of claim 41.

22
23 45. (Original) A method of providing a skin model for use in rendering a
24 skin, the method comprising:
25

1 receiving a skin definition file that contains information associated with a
2 skin, and one or more other files that are associated with the skin;

3 providing at least some of the one or more other files directly into computer
4 memory, without the files entering a computer file system; and

5 processing the skin definition file to provide a hierarchical data structure
6 that describes the skin.

7
8 46. (Original) The method of claim 45, wherein the skin definition file
9 comprises an XML file.

10
11 47. (Original) The method of claim 45 further comprising processing the
12 hierarchical data structure to provide one or more rendering elements, each
13 rendering element being associated with a skin element and being configured for
14 use in rendering their associated skin element.

15
16 48. (Original) The method of claim 47 further comprising processing the
17 hierarchical data structure to provide a script engine configured to execute script
18 associated with the skin.

19
20 49. (Original) The method of claim 48 further comprising processing the
21 hierarchical data structure to provide one or more events to the script engine, the
22 script engine being programmable to take a definable action in connection with the
23 occurrence of the one or more events, the definable action providing a degree of
24 interactivity for the skin.

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1 50. (Original) The method of claim 49, further comprising processing
2 the hierarchical data structure to provide one or more script files to the script
3 engine, the script files defining the action that provides the degree of interactivity
4 for the skin.

5
6 51. (Original) One or more computer-readable media having computer-
7 readable instructions thereon which, when executed by a computer, cause the
8 computer to implement the method of claim 45.

9
10 52. (Original) A method of providing a skin model for use in rendering a
11 skin, the method comprising:

12 receiving a skin definition file that contains information associated with a
13 skin, and one or more other files that are associated with the skin, the skin
14 definition file comprising an XML file;

15 processing the skin definition file to provide a hierarchical data structure
16 that describes the skin; and

17 processing the hierarchical data structure to provide an object model for
18 rendering the skin.

19
20 53. (Original) The method of claim 52, wherein the object model
21 comprises one or more rendering elements, each rendering element being
22 associated with a skin element and being configured for use in rendering their
23 associated skin element.

1 54. (Original) The method of claim 53, wherein the object model
2 comprises a script engine configured to receive and execute script files associated
3 with one or more of the rendering elements, the script files defining a degree of
4 interactivity for the skin.

5
6 55. (Original) The method of claim 54, wherein the processing of the
7 hierarchical data structure comprises providing one or more events to the script
8 engine, the script engine being programmable to take a definable action in
9 connection with the occurrence of the one or more events.

10
11 56. (Original) The method of claim 55, wherein the processing of the
12 hierarchical data structure comprises providing one or more script files to the
13 script engine.

14
15 57. (Original) One or more computer-readable media having computer-
16 readable instructions thereon which, when executed by a computer, cause the
17 computer to:

18 receive a skin definition file that contains information associated with a
19 skin, and one or more other files that are associated with the skin, the skin
20 definition file comprising an XML file;

21 process the skin definition file to provide a hierarchical data structure that
22 describes the skin; and

23 process the hierarchical data structure to provide an object model for
24 rendering the skin, the object model comprising:

25

1 one or more rendering elements, each rendering element being associated
2 with a skin element and being configured for use in rendering their associated skin
3 element; and

4 a script engine configured to receive and execute script files associated with
5 one or more of the rendering elements, the script files defining a degree of
6 interactivity for the skin.

7
8 58. (Original) A method of providing a skin comprising:
9 rendering a skin;
10 ascertaining whether a defined event associated with the rendered skin has
11 occurred; and
12 responsive to the defined event occurring, re-rendering the skin, said re-
13 rendering taking place at runtime.

14
15 59. (Original) The method of claim 58, wherein said event comprises an
16 external event.

17
18 60. (Original) The method of claim 58, wherein said event comprises an
19 internal event.

20
21 61. (Original) The method of claim 58, wherein said ascertaining takes
22 place at runtime.
23
24
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1 62. (Original) The method of claim 58, wherein said ascertaining is
2 performed by a script engine that is programmed with one or more events and
3 script files that are related to the events and executed by the script engine.

4
5 63. (Original) The method of claim 62, wherein said re-rendering
6 comprises the script engine calling one or more rendering elements that are
7 associated with at least a portion of the skin to notify the one or more rendering
8 elements that they must be re-rendered.

9
10 64. (Original) The method of claim 63, wherein said calling comprises
11 providing one or more parameters associated with the re-rendering to the one or
12 more rendering elements.

13
14 65. (Original) One or more computer-readable media having computer-
15 readable instructions thereon which, when executed by a computer, cause the
16 computer to:

17 render a skin;
18 ascertain whether a user-defined event associated with the rendered skin
19 has occurred; and
20 responsive to the defined event occurring, re-render the skin, said re-
21 rendering taking place at runtime.

22
23 66. (Original) The computer-readable media of claim 65, wherein the
24 instructions cause the computer to:

25 ascertain whether an internal event has occurred; and

responsive to the internal event occurring, re-render the skin.

67. (Original) A method of rendering a skin comprising:

defining one or more subviews, each subview corresponding to a subsection within a skin that can be moved or hidden;

defining multiple visible regions, individual visible regions being associated with the one or more subviews, the visible regions representing individual areas to which their associated one or more subviews are drawn;

defining a tree structure having multiple nodes, each node being associated with a visible region and having one or more attributes;

recalculating a visible region for a node responsive to an attribute change for the visible region;

recalculating a visible region associated with a parent node of said node;

and

after said acts of recalculating, re-rendering a skin associated with the tree structure.

68. (Original) The method of claim 67, wherein said defining of the one or more subviews comprises doing so using an XML data structure.

69. (Original) The method of claim 67, wherein said recalculating of the visible region associated with the parent node comprises summing multiple visible regions.

1 70. (Original) The method of claim 67, wherein said re-rendering takes
2 place at runtime.

3
4 71. (Original) The method of claim 67, wherein said defining of the tree
5 structure comprises doing so at runtime.

6
7 72. (Original) One or more computer-readable media having computer-
8 readable instructions thereon which, when executed by a computer, cause the
9 computer to:

10 define one or more subviews using an XML data structure, each subview
11 corresponding to a subsection within a skin that can be moved or hidden;

12 define multiple visible regions, individual visible regions being associated
13 with the one or more subviews, the visible regions representing individual areas to
14 which their associated one or more subviews are drawn;

15 define a tree structure having multiple nodes, each node being associated
16 with a visible region and having one or more attributes;

17 recalculate a visible region for a node responsive to an attribute change for
18 the visible region;

19 recalculate a visible region associated with a parent node of said node; and

20 responsive to said acts of recalculating, re-render a skin associated with the
21 tree structure.

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